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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/318,249	05/25/1999	WILLIAM J. FURNAS	5298-18	1103

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EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/318,249

Applicant(s)

FURNAS, WILLIAM J.

Examiner

Thanh X. Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to amendments and remarks filed January 31, 2005. Claims 1-7 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Juvinal et al. (U.S. Patent 4,601,395).

Regarding claim 1, Juvinal et al. disclose (see Figs. 1, 2 and 4) a machine for inspecting the wall of a bottle comprising: a conveyor (see Fig. 1) for supporting a bottle at an inspection station, the inspection station including (see Fig. 2) a CCD camera (42 and col. 4, lines 15-17) on one side of the conveyor having a camera image, a light source (52 or 40 generally), on the other side of the conveyor, for imaging the bottle on the CCD camera image; energy controlling means for operating (48, 50, controller for 52, see "controlled light source") the light source to emit light energy for defining light intensities varying between (see Figure 4a) a minimum brightness level (62a) that will permit the identification of a light blocking defect (64) and a maximum brightness level (58a), the brightness level (see Figure 4a) varying spatially, cyclically, and continuously at a rate of change which is less than a rate of change that would be identified as a defect (in Fig. 4a, the brightness level rate of change varies less than a rate of change

in the defect 64), computer means (56 of Fig. 2) for analyzing the camera image by comparing neighboring pixels to determine the rate of change in brightness level to identify defects where the rate of change exceeds a defined value (see col. 4, lines 66 - col. 5, line 7, "The information processor 56 generates an event signal when the magnitude of signals from adjacent pixels in a scan differ by more than a preselected threshold.. The information processor 56 performs a connectivity analysis by evaluating the locations of a plurality of events to determine whether a defect is present.")

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Juvinall et al. in view of Ishikawa et al. (U.S. Patent 4,924,083).

Regarding claim 2, Juvinall et al. disclose (see Fig. 2 and col. 4, lines 50-54) a source (52) disposed within a light source (40). Juvinall et al. also teach that (see col. 4, lines 27-30) "Light source 40... comprises a plurality of incandescent lamps disposed in three columns..." Although Fig. 2 shows only one source (52), Juvinall et al. teach that more than one light source in a column configuration is actually used. Juvinall et al. do not specifically teach the use of a plurality of LED rows. Ishikawa et al. disclose (see Fig. 18) a light source comprising a plurality of LED rows (40) for a bottle inspection device. Furthermore, it is well known that LEDs provide more efficient illumination.

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a plurality of LED rows as the light source of the device of Juvinall et al. in view of Ishikawa et al. to provide more efficient illumination and to reduce operating costs.

Allowable Subject Matter

5. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed January 31, 2005 have been fully considered but they are not persuasive.

Applicant asserts that the prior art does not disclose an "energy controlling means" as claimed. Examiner disagrees. First, the terms "energy controlling" simply acts as a label for the means and adds no structural limitation. Second, even if "energy controlling" is given patentable weight, the prior art does disclose an energy controlling means since light (a form of energy) intensity is controlled or varied. Thus, as set forth above, this rejection is proper.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu
Primary Examiner
Art Unit 2878